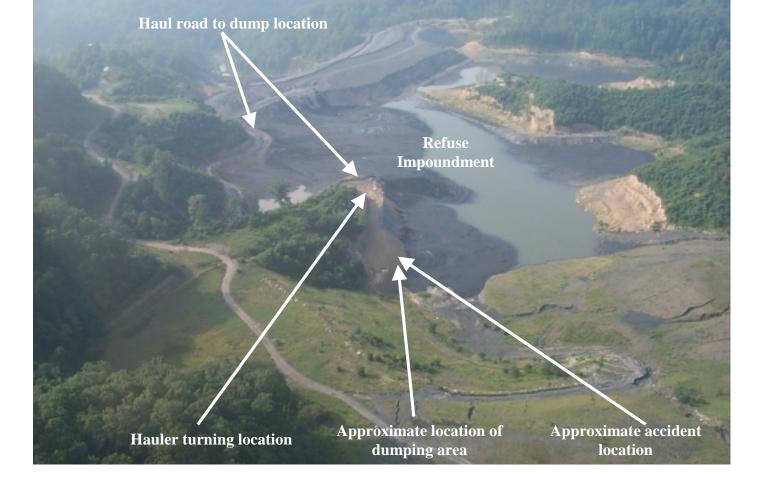
# Virginia Department of Mines, Minerals & Energy Division of Mines

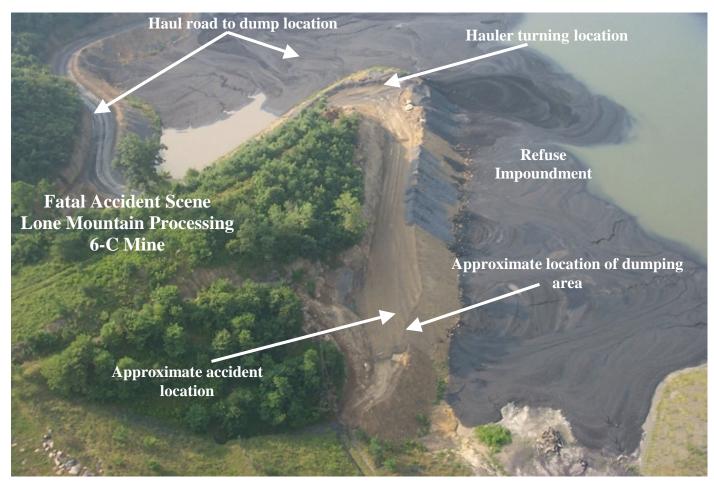
## Accident Investigation Report Underground Coal Mine Preparation Plant

**Surface Haulage Fatality** June 28, 2002

# Lone Mountain Processing, Inc. 6-C Mine No. 1 Mine Index No. 14344AA Lee County, Virginia

CONTENTS	
Photographs/Sketch 1-5	Conclusion
Commentary 6	Enforcement Action 11
Statements From Mine Personnel 8	Recommendations 11
Physical Factors9	Appendix





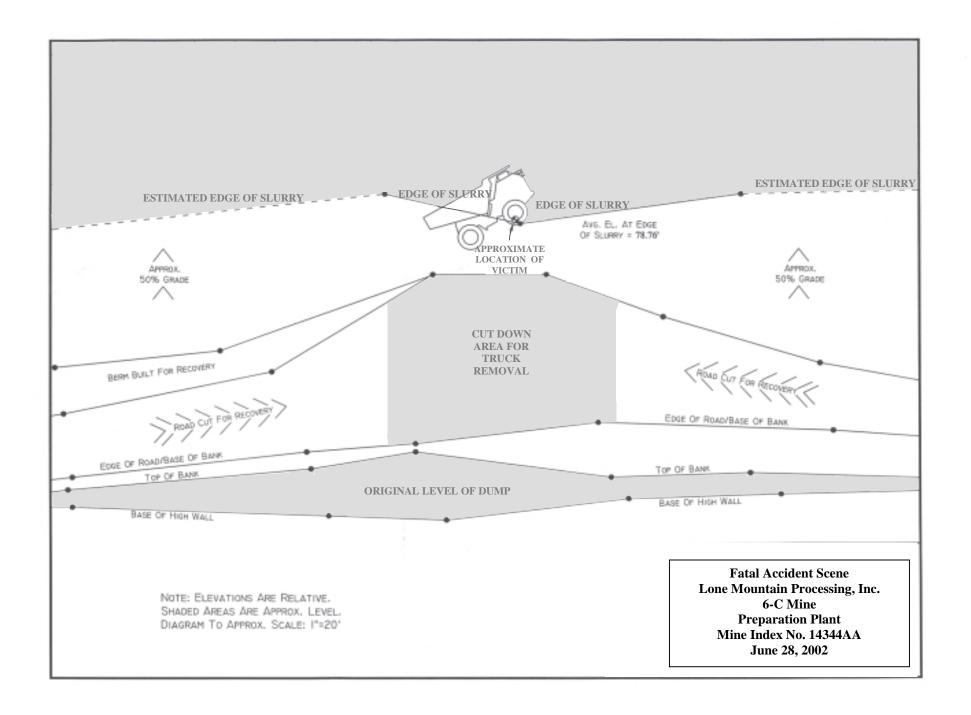


These on-site photographs were taken by company officials immediately following the accident.









## SURFACE HAULAGE FATALITY INVESTIGATION REPORT LONE MOUNTAIN PROCESSING, INC. 6-C MINE NO. 1 PREPARATION PLANT MINE INDEX NO. 14344AA

On June 28, 2002, at approximately 5:55 a.m., a surface haulage accident occurred at the preparation plant refuse impoundment of Lone Mountain Processing, Inc., 6-C Mine No. 1, Mine Index No. 14344AA. Willie Holmes, Jr., welder/pipe fitter, was fatally injured when the Caterpillar 773B, No. 3 end dump truck, serial number VIN-63W1456, that he was operating backed through a berm, over an embankment and overturned, into the refuse impoundment. Mr. Holmes either jumped or was ejected from the truck. The accident occurred on a haul road near a location where he had been dumping coal/rock material into the refuse impoundment. Mr. Holmes, age 49, had 28 years total mining experience and three years and eleven months employment at Lone Mountain Processing, Inc. The Department of Mines, Minerals and Energy's Division of Mines was notified of the accident at approximately 7:15 a.m. on June 28, 2002, and a joint investigation with the Mine Safety and Health Administration was initiated the same day. The 6-C Mine No. 1 and preparation plant are scheduled to receive one regular inspection per year. The last regular inspection was completed on May 2, 2002.

### **COMMENTARY**

Lone Mountain Processing, Inc., 6-C Mine No. 1 preparation plant is located four and one-half miles north of St. Charles, Virginia, on State Route 636, in Lee County, Virginia. The 6-C Mine No. 1 and the adjoining preparation plant employ 34 personnel. Thirty-one of the employees work at the preparation plant and three work at the 6-C Mine No. 1.

The 6-C Mine No. 1 was developed through the Number Six coal seam from Virginia to Kentucky. Coal is transferred by belt conveyors from the Huff Creek and Darby Fork mines, located in Kentucky, through the 6-C Mine No. 1 to the preparation plant located in Virginia. The 6-C Mine No. 1 does not produce coal and is only used as a tunnel mine to transport coal from the Kentucky side of the mountain to the Virginia side. The mine and plant operate two twelve-hour shifts per day, six days per week. The day shift works from 6:00 a.m. to 6:00 p.m. and the evening shift works from 6:00 p.m. to 6:00 a.m. The preparation plant processes approximately 18,000 raw tons of coal per 24 hour period. The evening shift normally processes coal about six hours out of the twelve-hour shift and performs maintenance work during the remainder of the shift.

On Thursday evening, June 27, 2002, the evening shift began with a safety meeting being held with the crew and the assignment of work duties by Douglas Lee Stapleton, Sr., evening shift foreman. Willie Holmes, Jr., welder/pipe fitter, was assigned the job of hauling fine coal/rock waste, composed of approximately 40 percent water and small rock and material that will pass through a 100 mesh screen, from the refuse bin to a designated dumping area located at the west end of the refuse impoundment. Mr. Holmes operated a Caterpillar 773B, end dump truck, serial number, VIN-63W1456, truck No. 3, to haul the fine coal/rock waste material from the refuse bin to the refuse impoundment turn area, a distance of six tenths of a mile. The end dump truck then had to be backed a distance of approximately 400 feet from the turn area to the designated dump location.

Mr. Holmes loaded the truck at the refuse bin and proceeded toward the refuse impoundment dumping area. Shortly after the start of the shift, Mr. Holmes, using the CB radio in his truck, notified Mr. Stapleton that the haul road on the hill leading to the dump location was slick. Mr. Stapleton instructed Harold Richard Bullock, utility man, to put gravel on the haul road. Mr. Bullock placed gravel on the entire haul road. The shift continued normally with Mr. Holmes making several trips with the truck from the refuse bin to the dump location until approximately 9:00 p.m. when a pressure pipe burst in the preparation plant and the plant was shut down for repairs. Mr. Stapleton instructed Mr. Holmes to come to the plant to perform maintenance work. Mr. Stapleton instructed Mr. Holmes and Danny Stapleton, pipe fitter/welder, to replace a section of pressure pipe that had burst. A broken discharge lip on the No. 2 coarse coal screen in the plant was also repaired during the time the plant was shut down. Mr. Holmes resumed operation of the No. 3 end dump truck at approximately 2:20 a.m., after replacing the pipe. Hauling and dumping activities continued normally until approximately 5:45 a.m. when Mr. Holmes informed Donald Edens, plant operator, that he was making his last trip for the shift with a load that would be his twenty-fifth.

The shifts changed at 6:00 a.m. Plant personnel became concerned when Mr. Holmes did not return to the plant at the end of his shift. Winston Wade, dayshift plant foreman, attempted to contact Mr. Holmes by CB radio without success. Mr. Wade instructed Vernon Collett, dayshift rock hauler operator, to look for Mr. Holmes' truck as he traveled to dump a load of rock on the refuse impoundment. Robert Middleton, dayshift fine coal/rock hauler operator, got the No. 2 end dump truck and prepared to haul the fine coal/rock waste from the refuse bin, since the No. 3 truck that Mr. Holmes was driving had not returned. Mr. Collett notified Don Sexton, surface foreman, and Winston Wade, dayshift plant foreman, by CB radio that he had observed the truck that Mr. Holmes had been driving had overturned into the refuse impoundment. Mr. Sexton, Mr. Wade and Mr. Collett, immediately traveled to the dump location to determine what had happened and observed that the truck was lying on its left side in the impoundment. Mr. Sexton climbed onto the cab of the truck and observed that it was full of refuse and there was no sign of Mr. Holmes. After securing the truck by tying it off to a Caterpillar D10 bulldozer, mine personnel searched for Mr. Holmes by digging in the refuse in the cab of the end dump truck.

The decision was made to use two D10 bulldozers to grade the elevation of the road down to the level of the overturned truck, which was necessary to turn the truck upright so the search for Mr. Holmes could continue. The truck was turned upright at approximately 10:05 a.m. The search for Mr. Holmes continued by digging through the refuse in the cab of the truck. When mine personnel had verified that Mr. Holmes was not in the truck cab, the search extended into the refuse impoundment. Mr. Holmes' body was discovered at 1:08 p.m. in the immediate area where the truck had overturned into the refuse impoundment. Mine personnel recovered Mr. Holmes' body from the impoundment at approximately 1:25 p.m. Representatives of the St. Charles Volunteer Rescue Squad transported Mr. Holmes to the Lee Regional Medical Center in Pennington Gap, Virginia, where Mr. Holmes was examined and pronounced dead on arrival.

#### STATEMENTS FROM MINE PERSONNEL AND OTHER FACTORS

Statements from mine personnel interviews and other factors determined during the investigation revealed the following:

- 1. There were no eyewitnesses to the accident. Mine personnel stated that Willie Holmes, Jr., welder/pipe fitter, was operating the Caterpillar 773B, end dump truck, No. 3, at the time of the accident, which occurred at approximately 5:55 a.m. on June 28, 2002.
- 2. Thurman Holcomb, preparation plant superintendent, stated that the daily examination of the refuse impoundment is usually conducted by Donald Sexton, surface foreman, but if Mr. Sexton is not available, then one of the preparation plant foremen performs the daily impoundment examination.
- 3. A safety meeting was held at the preparation plant on Thursday evening, June 27, 2002, prior to starting work assignments. Mine personnel stated that the topic of being careful just before vacation was discussed.
- 4. On Thursday evening, June 27, 2002, Douglas Lee Stapleton, Sr., evening shift foreman, assigned Mr. Holmes the job of hauling fine coal/rock refuse. Mine personnel stated that this shift was a "float" shift for Mr. Holmes, which meant that he did not necessarily work in his job classification when working the "float" shift.
- 5. Mine personnel stated that pre-operational checks on mobile equipment are performed by the equipment operators. Pre-operational checks consist of visually observing the equipment during a walk-around inspection, washing lights and cleaning mirrors if needed, checking fluid levels, checking the back-up alarm, and checking brakes. At 5:37 a.m., Mr. Bullock used a wash down hose to wash the truck, including the rear lights.
- 6. Truck operators stated that it was the operator's responsibility to report to the shift foreman if berms needed to be repaired. Truck operators also stated that they believed the haulroad and dumping berms were adequate and were at least three to four feet high.
- 7. Mine personnel stated that periods of heavy rain had occurred during the shift and that there had been some occasional fog. Mine personnel also stated that raining had ceased before the accident occurred and that no fog was observed by Mr. Collett when he observed the truck in the impoundment.
- 8. Mine personnel stated that Mr. Holmes reported at the start of the shift that the hill leading to the refuse impoundment was slick, due to some spillage by the previous shift, and that Mr. Bullock, utility man, graveled the entire haul road.
- 9. Danny Peace, floc man, stated that he was in the plant control room talking to Mr. Edens, plant operator, when he heard Mr. Holmes call on his CB radio, at approximately 5:45 a.m., and report to Mr. Edens that he was making his last trip for the shift, which would be his twenty-fifth load.
- 10. Mr. Wade, dayshift plant foreman, stated that he became concerned when Mr. Holmes failed to return to the plant at the end of his shift. Mr. Wade instructed Mr. Collett, dayshift rock truck operator, to look for Mr. Holmes' truck as he traveled to dump a load of rock on the refuse impoundment.
- 11. Mr. Collett stated that he observed Mr. Holmes' truck overturned into the refuse impoundment and reported the accident on his CB radio.

- 12. Mr. Sexton stated that he, Mr. Collett, and Mr. Wade were the first three people to reach the scene of the accident and observed that the 773B end dump truck was lying on its left side in the refuse impoundment. The truck engine was off, the red rear running lights were on, the emergency steering hydraulic pump was running and the front wheels were in a right turn position.
- 13. Mr. Sexton stated that it appeared that Mr. Holmes' truck had gone through the safety berm approximately twenty to twenty-five feet short of the designated dump location. Mr. Sexton stated that the haulroad at the scene of the accident appeared to be somewhat level and solid.
- 14. Mr. Sexton stated that he climbed onto the cab of the truck to look for Mr. Holmes. The cab of the truck was full of refuse and Mr. Sexton, assisted by Mr. Wade and Mr. Middleton, searched through the refuse in the truck cab but did not locate Mr. Holmes.
- 15. Mine personnel stated that a company representative took photographs of the accident area prior to any recovery work that would disturb the accident scene.
- 16. Mine personnel stated that when Mr. Holmes was not found in the cab of the truck, the search began in the refuse impoundment where the body of Mr. Holmes was discovered at approximately 1:08 p.m.
- 17. Mine personnel stated that the body of Mr. Holmes was recovered at approximately 1:25 p.m. and transported to Lee Regional Medical Center in Pennington Gap, Virginia.

### PHYSICAL FACTORS

The investigation of physical factors revealed the following:

- 1. The accident occurred at the preparation plant refuse impoundment of Lone Mountain Processing, Inc., 6-C Mine No. 1, as a result of a Caterpillar 773B, 50 ton, end dump truck, serial number VIN-63W1456, overturning into a refuse impoundment.
- 2. The accident investigation revealed that the dumpsite and the berm immediately adjacent to the dumpsite where the truck ran through the berm were no longer in place due to recovery activities.
- 3. The distance from the preparation plant refuse bin to the turning area at the refuse impoundment is approximately six tenths of a mile.
- 4. The distance from the turning area at the refuse impoundment to the designated dumping location is approximately 400 feet.
- 5. The Caterpillar, 1985 model, 773B end dump truck is 29 feet and 11 inches in length, as measured from the front bumper to the end tip of the bed, and 12 feet and five inches in width at the widest point of the frame.
- 6. The Caterpillar 773B end dump truck had recently had a factory certified rebuild by Carter Machinery of Norton, Virginia, and had been placed back into service on June 12, 2002. The certified rebuild consisted of a complete disassembling and inspection of the engine, transmission, torque convertor and brakes, and an inspection of the truck frame for cracks and other damage. The truck is then reconditioned and updated to Caterpillar Certified Rebuild Standards, incorporating new Caterpillar remanufactured products or qualified reusable parts.
- 7. The Caterpillar 773B end dump truck had been operated for 239.5 hours, and had traveled 107 miles since being returned to the mine after the certified rebuild was completed by Carter Machinery in Norton, Virginia.

- 8. Mr. Holmes' hardhat was found inside the operator's compartment of the 773B end dump truck.
- 9. Mr. Holmes was discovered outside the vehicle in the refuse impoundment.
- 10. The seat belt was found unlatched and was functional when examined and tested.
- 11. The operator's cab and compartment of the 773B end dump truck sustained the following damage:
  - A. The steering wheel was bent.
  - B. The steering column housing was broken loose from its mount to the dash panel.
  - C. The turn signal switch was broken loose from the mount on the steering column.
  - D. The driver's side mirror was broken.
  - E. The catwalk and handrail at the driver's door was crushed.
  - F. The driver's side door, was crushed in against the driver's seat and steering wheel.
  - G. Five of the six cab window glasses were broken. Only the right side door glass was not broken.
  - H. The convex mirror on the right side of the truck was in good condition. Objects are closer than perceived when looking into this type of mirror.
  - I. An air fitting on the rear reserve air tank, located behind the operator in a separate compartment within the cab, was cracked and leaking and the protective cover was missing from this compartment.
  - J. A bolt was sheared in the lower flexible step on the operator's side step.
- 12. The following examinations and tests were conducted to evaluate the safe operating condition of the steering and braking systems of the Caterpillar 773B end dump truck, after the vehicle was removed from the accident location to the preparation plant:
  - examined the truck and determined that it could be started necessary to perform tests;
  - examined the steering components and determined that the vehicle could be steered even though the steering column mount was broken and steering wheel was bent;
  - examined back up alarm, which functioned properly;
  - examined back up lights and determined that four of the five lights would operate;
  - tested the truck braking systems by pulling the vehicle in gear and evaluated effectiveness of hand brake, retarder, foot (service) brake, and park brake;
  - checked the operation of brake deactivation on the front wheels;
  - load-tested brakes by putting vehicle in gear and accelerating engine RPM's until vehicle started to override brakes;
  - examined low brake pressure warning system which operated properly;
  - performed load test on vehicle by connecting pull test indicator between the 773B end dump truck with brakes set and a D10 bulldozer. The truck would slide on dirt surface when 65,000 72,000 pounds of pull pressure was exerted as verified by the pull test indicator.
  - rear wet disc brakes were examined and were in good condition; and
  - front brakes were visually examined and appeared to be in good condition. All the tests performed on the 773B end dump truck met or exceeded standards established by the manufacturer.

#### **CONCLUSION**

On June 28, 2002, at approximately 5:55 a.m., a surface haulage accident occurred at the refuse impoundment of Lone Mountain Processing, Inc., 6-C No. 1 mine. Willie Holmes, Jr., welder/pipe fitter, was fatally injured when the Caterpillar 773B end dump truck that he was operating backed through a safety berm, over an embankment and overturned, and either he jumped or was ejected from the truck.

#### **ENFORCEMENT ACTION**

The following enforcement action was taken as a result of the investigation:

An order of closure, No. JPS0003650, was issued under Section 45.1-161.91 A (ii) of the <u>Coal Mine Safety Laws of Virginia</u> to control and preserve the scene of the accident pending the investigation. The order of closure was modified to allow the following: to permit the 773B end dump truck to be moved from the accident site to the preparation plant and allow cleaning of the truck only; necessary repairs to be made to the structure of the truck incurred during the accident and to restore the truck to a safe operating condition; and to allow barricading of haulroad entrance entry to the scene of the accident.

### RECOMMENDATIONS

- 1. Haulage patterns and practices should be designed to minimize the need for travel in reverse for extended distances.
- 2. Dump locations should be clearly marked with reflectors and/or other markers.
- 3. Dump points should be located so that drivers can use the driver's side mirrors on the short side for visibility while backing.
- 4. Proper berms, equal to mid-axle height of the largest truck, and constructed of firm material, should be maintained along all haulage roads, and adequate berms should be maintained at dumping points.

# SIGNATURE SHEET

This report hereby submitted by Daniel Perkins and approved by Frank A. Linkous:		
DANIEL PERKINS, TECHNICAL SPECIALIST	DATE	
FRANK A. LINKOUS, CHIEF	DATE	

## **APPENDIX**

VICTIM DATA SHEET

PERSONS PRESENT DURING THE INVESTIGATION

MINE LICENSE INFORMATION

## VICTIM DATA SHEET

Name: Willie Holmes, Jr.
Date of Birth: May 27, 1953
Occupation: Welder/Pipe Fitter

Mailing Address: Route 1
Box 100

Keokee, Virginia 24265

Total Mining Experience: 28 years

Experience with Present Company: 3 years and 11 months Experience in Present Occupation: 3 years and 11 months

# **PERSONNEL**

The following personnel provided information and/or were present during the investigation:

# LONE MOUNTAIN PROCESSING, INC.

Charles Russell	Director Corporate Safety	
Jim Vicini	Manager of Safety	
Marco Rajkovich	Wyatt, Tarrant & Combs,	Attorney
	Attorneys At Law	
Douglas Lee Stapleton, Sr.	Shift Foreman	Night Shift
Danny Joe Stapleton	Pipe Fitter/Welder	Night Shift
Donald Lawrence Edens	Plant Operator	Night Shift
Danny Joel Peace	Floc Man	Night Shift
Michael David Shope	Hauler Operator	Night Shift
Harold Richard Bullock	Utility Man/Floater	Night Shift
Vernon Collett	Hauler Operator	Day Shift
Thurman Eugene Holcomb, Jr.	Plant Superintendent	Day Shift
Donald Wayne Sexton	Surface Foreman	Day Shift
Winston Nolan Wade, Jr.	Plant Foreman	Day Shift
Michael Edward Hendricks	Hauler Operator	Day Shift
Robert Dale Middleton	Hauler Operator	Day Shift

### MINE SAFETY AND HEALTH ADMINISTRATION

Edward R. Morgan Acting District Manager

Norman G. Page Acting Assistant District Manager – Technical Division

Benjamin S. Harding Inspection Supervisor

James W. Poynter Conference and Litigation Representative

Russell A. Dresch Electrical Engineer

Wade T. Gardner Mine Safety and Health Specialist, Surface

Lannie Gilbert Coal Mine Inspector
Arnold D. Carico Mining Engineer
John F. Godsey Coal Mine Inspector
James A. Baker Coal Mine Inspector

### MSHA APPROVAL AND CERTIFICATION CENTER

Ronald Medina Mechanical Engineer

## MSHA-PITTSBURG SAFETY AND HEALTH TECHNOLOGY CENTER

Michael C. Superfesky

Michael Murawski

Civil Engineer

Civil Engineer

### **VIRGINIA DIVISION OF MINES**

Frank Linkous
Carroll Green
Mine Inspector Supervisor
John Thomas
Mine Inspector Supervisor
Sammy Fleming
Coal Mine Inspector
Danny Mann
Coal Mine Inspector
Coal Mine Inspector

James Philmore Skorupa

Coal Mine Inspector
Coal Mine Inspector
Technical Specialist

## **CARTER MACHINERY**

Robert Kilgore Field Technician Rick Powers Field Technician Roy Bright Field Technician

### MINE LICENSE INFORMATION

Official Corporation: Lone Mountain Processing, Inc.
Official Business Name of Operator: Lone Mountain Processing, Inc.

Person with Overall Responsibility: Thomas Baumgarth
Person in Charge of Health and Safety: Thurman Holcomb, Jr.